

**REMARKS**

Claims 1-28 are rejected and pending. Responsive to the Office Action mailed December 18, 2002, Claims 1, 11, 12, 17, and 21 have been amended and Claim 17 has been cancelled. With the amendments provided above and the remarks provided below, Applicants respectfully request reconsideration and a withdrawal of all objections and rejections.

Responsive to the claim objection of the Office Action, Claim 12 has been amended for formality purposes. Specifically, Claim 12 has been amended to recite "the front head having a driveshaft side and the inner wall extending from the driveshaft side to an open end to define the crank case." Applicants request reconsideration and withdrawal of the objection.

Claims 1, 11, and 21 have been amended for clarification purposes. Claims 1, 11, and 21 now recite "the skirt extending from the second end of the body and being defined by an arcuate outer surface complementing the groove so that the skirt is slideably moveable along the groove." Claim 11 has been further amended to recite that "the axis of rotation of the skirt is located between the inner wall and the axis of rotation of the body." The amended language above is explicitly supported and adequately described in Figures 2a, 2b, 4-5, 7a-10, and 12a-12b and pages 5-7 of the specification of the present application. Specifically, the figures depict an anti-rotation piston having a body and a skirt extending therefrom. The figures clearly show the skirt extending from the second end of the body and being defined by an arcuate outer surface which complements the anti-rotation groove. Moreover, the specification explicitly recites an "anti-rotation piston 53 includes body 56 and skirt 60 extending from body 56." "As shown, skirt 60 extends from second end 67 and has an arcuate outer surface 70 complementing groove 30 of inner wall 20 so that skirt 60 is slideably moveable along the groove when disposed in assembly 10." Specification, page 5, paragraph 26. Thus, no new matter has been added.

In the Office Action, the Examiner has set forth four separate claim rejections under 35 U.S.C. § 102(b), naming five references, Kimura et al. (5,941,161), Terauchi (5,615,599), Rasmussen (3,938,397), Kimura et al. (6,010,313), and Hiramatsu et al. (5,988,041). Each of the references separately fail to teach each and every element as set forth in the claimed invention. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Amended Claims 1, 11, and 21 of the application recite an anti-rotation piston which is slideably moveable within a piston-receiving bore and an anti-rotation groove of the swash plate compressor assembly. Amended Claims 1, 11, and 21 further recite that the anti-rotation piston has a body and a skirt extending from the body wherein the skirt extends from the second end and is "defined by an arcuate outer surface complementing the groove so that the skirt is slideably moveable along the groove." Moreover, Claim 11 of the present application recites that the axis of rotation of the skirt is "located between the inner wall and the axis of rotation of the body."

Responsive to the rejections under 35 U.S.C. § 102(b) as being anticipated by Kimura et al. (5,941,161), Kimura et al. ('161) fail to teach each and every element as set forth in the claimed invention. Kimura et al. ('161) fail to disclose all of the elements recited in the amended claims. Specifically, Kimura et al. ('161) fail to teach a skirt of an anti-rotation piston defined by an arcuate outer surface which complements an anti-rotation groove formed within the swash plate compressor. Moreover, Kimura et al. ('161) fail to teach an axis of rotation of the skirt being located between the inner wall and the axis of rotation of the body. As shown in Figures 2-4 and 6 of Kimura et al., the compressor fails to include an anti-rotation groove formed therein to complement an arcuate outer surface of the skirt of a piston as recited in amended Claims 1, 11, and 21.

As for Terauchi, Terauchi fails to disclose all the elements as set forth in the claims. For example, Terauchi fails to teach an anti-rotation groove formed in a swash plate compressor and a skirt of an anti-rotation piston being defined by an arcuate outer surface complementing the groove as claimed in the present application. Rather, Terauchi teaches a piston-type compressor comprising pistons,

each of which has a connection portion which are received and secured by the cylinder housing by way of integral arms extending from its inner surface toward the interior of a cylinder housing. Several embodiments may be found in Figures 7, 9, 11, and 13. These connection portions are not arcuate and do not define the shape of the skirt of the piston as claimed in the present application. Thus, Terauchi fails to show all elements of the claimed invention recited in independent Claims 1, 11, and 21.

Rasmussen fails to disclose all the elements as set forth in the claims of the present application. For example, Rasmussen fails to teach an anti-rotation groove formed adjacently in a swash plate compressor, an arcuate outer surface defining the skirt of an anti-rotation piston, and complementing relationship between the groove and the arcuate outer surface of the skirt. Rather, Rasmussen teaches a power transmitting mechanism for reciprocating engines or pumps connecting piston rods of a plurality of cylinders with a slant on a main shaft. As shown in Figures 1 and 2 of Rasmussen, each piston only includes a relatively short external bearing support surface which does not define the skirt of the piston. "Individually or together with a relatively short external bearing support surface 16 of the crosshead, these thrust blocks may absorb the transverse components of the rotating transverse force vector T." Column 4, lines 7-10. As shown in Figures 1 and 2, reference numeral 16 refers to the relatively short external bearing support surface rather than the entire external surface of the skirt. Figure 2 merely depicts a cross-section along lines 2-2 of Figure 1 of the short external bearing support surface 16. This, however, does not define the shape of the skirt as recited in Claims 1, 11, and 21.

Moreover, Rasmussen fails to teach a piston having a body which complements a piston-receiving bore of the swash plate compressor as recited in amended Claim 1. Amended Claim 1 recites "the body complementing the bore so that the body is slideably moveable within the bore." As shown in Figures 1, 3, 6, and 8 of Rasmussen, the piston rod diameter is substantially smaller than the bore in which the piston is disposed. Additionally, in the embodiment depicted in Figures 1-7 of Rasmussen, the piston rod is tapered.

Kimura et al. (6,010,313) also fail to disclose all the elements as set forth in amended Claims 1, 11, and 21. For example, Kimura et al. ('313) fails to teach an anti-rotation piston having a body and a skirt extending therefrom, wherein the skirt is "defined by an arcuate outer surface complementing the groove." Kimura et al. (6,010,313) teaches, in Figures 1 and 2, a dovetail keyway in the inner wall of the front housing which receives a dovetail key extending from the skirt of each piston. As shown, the dovetail key is not arcuate and is not an outer surface defining the shape of the skirt. The dovetail key in Kimura et al. (6,010,313) is merely an additional extension from the skirt to be received by the dovetail keyway. Thus, Kimura et al. (6,010,313) fail to show all elements of the claimed invention.

Hiramatsu et al. also fail to disclose all the elements as set forth in the claims. For example, Hiramatsu et al. fail to teach an anti-rotation groove formed adjacently in a swash plate compressor and in complementing relationship with a skirt of the anti-rotation piston. Hiramatsu et al. also fail to disclose the skirt having a second radius of curvature being offset from a first radius of curvature of the body of the piston. Hiramatsu et al. also fail to teach a skirt of the piston being defined by an arcuate outer surface which complements the groove. Moreover, Hiramatsu et al. further fail to teach offset first and second radii of curvatures between the body and the body of the piston, preventing piston rotation. Thus, Hiramatsu et al. fail to show all elements of the claimed invention.

Rather, Hiramatsu et al. teaches a restrictor to prevent the piston from rotating in the cylinder bore. The restrictor has a pair of arched surfaces slideably contacting an inner surface of the housing and a recessed surface located between the arched surfaces and free from contact with the inner surface. As shown in Figures 2-7 of Hiramatsu et al., the piston does not include a skirt defined by an arcuate outer surface complementing a groove formed adjacently in the swash plate compressor as recited in Claims 1, 11, and 28.

Claims 2-10 depend from Claim 1, Claims 12-20 depend from Claim 11, and Claims 22-28 depend from Claim 21, directly or indirectly. Thus, dependent claims are allowable for the reasons provided above. Thus, because the cited references

each fail to show all elements of the claimed invention recited in Claims 1, 11, and 21 for the reasons set forth earlier, the rejections under 35 U.S.C. § 102(b) are improper.

Responsive to the rejections under 35 U.S.C. § 103 of Claims 2-5 and 11-28, any combination of the cited references does not teach or suggest all the elements of amended Claims 11 and 21. As stated above, Rasmussen fails to teach an anti-rotation groove formed adjacently in a swash plate compressor, an arcuate outer surface defining the skirt of the anti-rotation piston, and a complementing relationship between the groove and the arcuate outer surface of the skirt.

Moreover, the Examiner has set forth rejections under 35 U.S.C. § 103 over Rasmussen in view of Masnik. 37 C.F.R. § 1.104(d) is provided in pertinent part as follows:

[i]f domestic patents are cited by the Examiner, their numbers and dates, and the names of the patentees will be stated. If domestic patent application publications are cited by the Examiner, their publication number, publication date and the names of the Applicants will be stated. If foreign published applications or patents are cited, their nationality or country, numbers and dates, and the names of the patentees will be stated and such other data must be furnished as may be necessary to enable the applicant, or in the case of a reexamination proceeding, the patent owner, to identify the published applications or patents cited. (emphasis added)

However, the Office Action dated December 18, 2002 fails to provide data for Masnik, including any foreign document number or U.S. patent number (see Form PTO-892, Paper No. 5). Additionally, the Information Disclosure citation (Form PTO-A820) is absent any document naming Masnik. Thus, the Applicants cannot properly identify Masnik as a published application, U.S. patent, or foreign document without such information. Therefore, it is improper for the Examiner to cite Masnik as a reference without providing the necessary data of Masnik. Thus, Applicants request withdrawal of the rejections under 35 U.S.C. § 103 involving Masnik.

Moreover, other combinations of cited references fail to teach or suggest the subject matter of the amended claims and would result in improper rejections.

Therefore, Claims 1-16 and 18-28 are in a condition for allowance and such action is earnestly solicited.

Applicants have calculated no fees to be presently due in connection with the filing of this Paper. However, the Applicants have authorized charging of any fee deficiency to the deposit account of the Applicants' assignee, Visteon Global Technologies, Inc., as indicated in the Transmittal accompanying this Statement.

Respectfully submitted,

March 18, 2003

Date



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## Amendments in a Revised Format Now Permitted

**Office of Patent Legal Administration << Pre-OG Notices << << Amendments in a Revised Format Now Permitted**

The United States Patent and Trademark Office (USPTO or Office) is permitting applicants to submit amendments in a revised format as set forth herein. The revised amendment format is essentially the same as the amendment format that the Office is considering adopting via a revision to 37 CFR 1.121 (Manner of Making Amendments). The revision to 37 CFR 1.121 (if adopted) will simplify amendment submission and improve file management. The Office plans to adopt such a revision to 37 CFR 1.121 by July of 2003, at which point compliance with revised 37 CFR 1.121 will be mandatory.

The revised amendment format is an expansion of the special amendment process instituted for a prototype Electronic File Wrapper program described in USPTO ANNOUNCES PROTOTYPE OF IMAGE PROCESSING, 1265 Off. Gaz. Pat. Office 87 (Dec. 17, 2002) ("Prototype Announcement"). The special amendment process (which was limited to claims) has proven overwhelmingly acceptable to applicants participating in the prototype and beneficial to examiners. The revised amendment format provides for amendments to be made to the specification and the drawings in addition to the claims.

Effective immediately, all applicants, including applicants participating in the prototype, may submit amendments using the revised amendment format set forth herein. Applicants may wish to submit all amendments in the revised amendment format because: (1) it will facilitate transition to a revised amendment format when it becomes mandatory, (2) inconsistent versions of claim amendments (clean and marked-up) will be avoided, and (3) time and resources will be saved.

#### WAIVER of 37 CFR 1.121

The provisions of 37 CFR 1.121(a), (b), (c) and (d) are waived for amendments to the **claims, specification, and drawings** in all applications in all Technology Centers where the amendments comply with the revised amendment format detailed below. Note: The revised amendment format (and the waiver) does **not** apply to 37 CFR 1.121(h) and (i) which indicate that amendments to reissue applications and reexamination proceedings are governed by 37 CFR 1.173 for reissue applications and 37 CFR 1.530 (d)-(k) for *ex parte* and *inter partes* reexaminations.

In addition, the WAIVER indicated in the above mentioned Prototype Announcement for the limited (claims only) amendment process of that prototype is also expressly continued and amendments in applications (other than reissue applications) in all Technology Centers that comply with the requirements in that announcement will be acceptable.

#### REVISED AMENDMENT FORMAT

##### I. Begin Sections on Separate Sheets:

Each section of an amendment paper (e.g., Amendments to the Specification, Amendments to the Claims, Remarks) shall begin on a separate sheet to facilitate separate indexing and electronic scanning of the document.

*For example*, each of the following four sections of an amendment paper must start on a separate sheet:

- a.) Introductory Comments
- b.) Amendments to the Specification
- c.) Amendments to the Claims
- d.) Remarks

**II. Submit Only One Version (with markings) of an Amended Part:**

The requirement to provide two versions of a replacement paragraph, section, or claim (a clean version and a marked up version), as set forth in current 37 CFR 1.121, is waived where the format set forth below is followed.

**III. Amendments to the Claims****A. A Complete Listing of Claims is Always Required:**

If an amendment adds, changes or deletes any claim, a detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remains under examination in the application, must be presented, and the amendment to the claims is expressed in the listing. The listing shall be presented as follows:

**1. Ascending Order and Status Identifier Required**

The listing shall be provided in sequential ascending numerical order (beginning with claim 1). A status identifier shall be provided for every claim in a parenthetical expression following the claim number (e.g., "Claim 1. (original)"). A list of acceptable status identifiers is set forth in part B, below. The text of **all** claims under examination shall be submitted each time any claim is amended. Cancelled and withdrawn claims should be indicated by only the claim number and status. The text of cancelled or withdrawn claims should not be presented.

**2. Markings in Currently Amended Claims Required**

All claims *being currently amended* shall be submitted with markings to indicate the changes that have been made relative to the immediate prior version of the claims. The changes in any amended claim should be shown by strikethrough (for deleted matter) or underlining (for added matter). No separate "clean" version should be submitted for currently amended claims, as this requirement has been eliminated. **Markings should only be made in claims being currently amended in an amendment paper.**

**3. Only Clean Text Required for Other Claims Under Examination.**

The text of pending claims *not being currently amended* that are under examination shall be presented in a clean version in the listing. Any claim presented in clean version constitutes an assertion that it has not been changed relative to the immediate prior version.

**4. Status to Effect Claim Cancellation or Addition.**

A claim may be cancelled by merely indicating the status of the claim as cancelled. Any new claim added by amendment must be indicated by the appropriate status identifier and shall not be underlined. Thus, added new claims of status (new), (reinstated - formerly claim #\_) and (re-presented - formerly dependent claim #\_) must be presented in clean version. Additional claims may be subject to additional fees, as appropriate.

**5. When Grouping of Claims is Permitted.**

Consecutive cancelled or withdrawn claims may be aggregated into one line of the listing (e.g. Claims 1 - 5 (cancelled)).

**6. Use "Currently Amended" Status Where Applicable.**

If any "previously reinstated" or "previously re-presented" claim is being amended, the status shall be indicated as "currently amended" with markings as indicated in paragraph A2, above. Multiple status identifiers should not be used for any single claim.



**B. Status Identifiers that May be Used:**

In order to promote uniformity and consistency, only the following eleven (11) defined status identifiers should be used to indicate the status of the claims (in parentheses after the claim number):

- |  |   |
|--|---|
| 1. (Original):                                     | Claim filed with the application following the specification (i.e., not added by preliminary amendment).    |
| 2. (Currently amended):                            | Claim being amended in the current amendment paper.   |
| 3. (Previously amended):                           | Claim not being currently amended, but which was amended in a previous amendment paper.                     |
| 4. (Cancelled):                                    | Claim cancelled or deleted from the application.  |
| 5. (Withdrawn):                                    | Claim still in the application, but in a non-elected status.  |
| 6. (Previously added):                             | Claim added in an earlier amendment paper.  |
| 7. (New):  | Claim being added in the current amendment paper.   |
| 8. (Reinstated - formerly claim # _):              | Claim deleted in an earlier amendment paper, but re-presented with a new claim number in current amendment. |
| 9. (Previously reinstated):                        | Claim deleted in an earlier amendment and reinstated in an earlier amendment paper.                         |
| 10. (Re-presented - formerly dependent claim # _): | Dependent claim re-presented in independent form in current amendment paper.                                |
| 11. (Previously re-presented):                     | Dependent claim re-presented in independent form in an earlier amendment, but not currently amended.        |

**C. Example of Listing of Claims:**

Claims 1-5 (cancelled)  
 Claim 6 (withdrawn)  
 Claim 7 (previously amended): A bucket with a handle.  
 Claim 8 (currently amended): A bucket with a ~~green~~ blue handle.  
 Claim 9 (withdrawn)  
 Claim 10 (original): A bucket with a wooden handle.  
 Claim 11 (cancelled)  
 Claim 12 (new): A bucket with plastic sides and bottom.  
 Claim 13 (previously added): A bucket having a circumferential upper lip.  
 Claim 14 (re-presented - formerly claim 11): A black bucket with a wooden handle.

**IV. Amendments to the Specification**

Amendments to the specification are to be made by presenting replacement paragraphs, sections or a substitute specification marked up to show changes made relative to the immediate

prior version, as set out in 37 CFR 1.121(b). The changes should be shown by strikethrough (for deleted matter) or underlining (for added matter). No accompanying "clean" version shall be supplied. The amendments to the specification shall be presented only one time, and will not appear in successive amendment documents.

#### V. Amendments to the Drawings

Amendments to the drawing figures shall be made by presenting replacement figures which include the desired changes, without markings, and which comply with § 1.84. The changes shall be explained in the accompanying remarks section of the amendment paper. If the amended drawings are not approved, the applicant will be notified in the next Office action. Any amended drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. The figure number in the amended drawing should not be labeled as "amended."

For further information on the prototype image electronic processing of patent applications, please contact the Search and Information Resources Administration at: [image.processing@uspto.gov](mailto:image.processing@uspto.gov). Any questions regarding the submission of amendments pursuant to the revised practice set forth in this notice should be directed to Elizabeth Dougherty ([Elizabeth.Dougherty@uspto.gov](mailto:Elizabeth.Dougherty@uspto.gov)), Gena Jones ([Eugenia.Jones@uspto.gov](mailto:Eugenia.Jones@uspto.gov)) or Joe Narcavage (<mailto:Joseph.Narcavage@uspto.gov>). For information on the waiver or legal aspects of the program, please contact Jay Lucas ([Jay.Lucas@uspto.gov](mailto:Jay.Lucas@uspto.gov)) or Rob Clarke ([Robert.Clarke@uspto.gov](mailto:Robert.Clarke@uspto.gov)).

Date: 1/31/03

Signed: /s/  
STEVEN KUNIN  
Deputy Commissioner for Patent  
Examination Policy

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| CONTACT US | PRIVACY STATEMENT

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